DOCUMENT RESUME

ED 109 217 95 TM 004 677

AUTHOR Scheid, Karen Filoso
TITLE Ohio's Statewide Needs Assessment.
INSTITUTION Ohio State Dept. of Education, Columbus.
SPONS AGENCY Office of Education (DHEW), Washington, D.C.
PUB DATE [74]
NOTE 21p.

EDRS PRICE MF-$0.76 HC-$1.58 PLUS POSTAGE
DESCRIPTORS Academic Achievement; *Educational Assessment; Educational Needs; *Educational Objectives; Federal Legislation; Grade 12; Reading Skills; *Reading Tests; Sampling; Secondary Education; *State Programs; *Student Needs; Student Testing
IDENTIFIERS Elementary Secondary Education Act Title III; ESEA Title III; *Ohio

ABSTRACT

Ohio's Statewide Needs Assessment is designed to provide baseline data about students' learning in cognitive areas. Over several years, students at various grade levels will be assessed. The areas to be assessed, as well as the grades of the students to be assessed, will be considered and advised upon by the ESEA Title III State Advisory Council. The council recommended that for the first year of assessment, only reading be assessed at grade twelve. The reading assessment instrument to be used in this first year contains items that assess those objectives thought by reading specialists in the Ohio Department of Education to be the most important. It will be administered to only a sample of Ohio twelfth graders by school personnel. Confidence intervals for each item on the instrument will be calculated in order to predict student performance. After the data from the assessment have been analyzed, reports presenting and explaining the results will be given. Regional meetings may be held throughout the state to provide further explanation of assessment results, while interpretations and implications of Title III are discussed. (Author/BJG)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED109217

TM

OHIO'S STATEWIDE NEEDS ASSESSMENT

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

TM 004 677

2

Martin W. Essex
SUPERINTENDENT OF PUBLIC INSTRUCTION

Franklin B. Walter
DEPUTY SUPERINTENDENT

Roger J. Lulow
DIRECTOR, DIVISION OF PLANNING AND EVALUATION

John E. Adams and Richard J. Dragin
ASSISTANT DIRECTORS

Prepared By
Karen Filoso Scheid

OHIO'S STATEWIDE NEEDS ASSESSMENT

The activity which is the subject of this report was supported in whole or in part by the U.S. Office of Education, Department of Health, Education and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the U.S. Office of Education and no official endorsement by the U.S. Office of Education should be inferred.

TABLE OF CONTENTS

SECTION I
INTRODUCTION 1

SECTION II
OHIO'S STATEWIDE NEEDS ASSESSMENT -
WHAT IT IS AND IS NOT 3

SECTION III
HOW WAS THE ASSESSMENT INSTRUMENT
DEVELOPED? 6

SECTION IV
WHO WILL BE INCLUDED IN THE ASSESSMENT? 9

SECTION V
HOW WILL THE INSTRUMENT BE ADMINISTERED? 10

SECTION VI
HOW WILL THE ASSESSMENT DATA BE ANALYZED? 11

SECTION VII
HOW WILL THE RESULTS BE DISSEMINATED? 13

SECTION VIII
HOW WILL SUBSEQUENT YEARS
OF THE ASSESSMENT BE CONDUCTED? 14

SECTION IX
IN CONCLUSION 14

SECTION I

INTRODUCTION

Are students learning what they should be learning? If not, in what areas do student learning needs exist? In what areas are student learning needs the greatest?

The answers to these questions are of obvious interest to all concerned with the educational process – students, teachers, parents, administrators, and general citizenry. Ohio's Statewide Needs Assessment, presently being developed by the Ohio Department of Education for use in the Elementary and Secondary Education Act Title III effort, will supply eventual answers to the above questions by providing data about the learning needs of Ohio students.

Information about statewide student learning needs is vital to the ESEA Title III effort. The purpose of Title III is to fund innovative and exemplary projects which address themselves to alleviating statewide learner needs. Those districts applying for Title III funding must show evidence that they have collected and analyzed local data which indicate the existence of a district learning need. In other words, the district must conduct a **needs assessment.** The district also must demonstrate that this local need corresponds to a statewide critical learner need.

Throughout the years of Title III operation in Ohio, statements about statewide student needs have been generated from such sources as the State Board of Education's goal statements and the "Top Citizens' Concerns" emanating from the state's massive involvement of citizens in education – Search for Consensus.

In 1973, the U.S. Office of Education, which annually reviews each state's plan for administering Title III, concluded that Ohio's past method for determining statewide critical needs should be extended to a direct assessment of students. To respond to this dictate from the Office of Education, the Division of Planning and Evaluation of the Ohio Department of Education has been given the responsibility for planning and developing an assessment system that will indicate more accurately and specifically what are the statewide student learning needs.

Because Ohio has never before conducted a statewide assessment similar to that now being planned, the first assessment, to be conducted in October of 1974, is being regarded as a pilot study. This does not mean that valuable information will not result. It does mean, though, that during this first year, emphasis is being placed upon developing an effective, workable assessment procedure.

SECTION II

OHIO'S STATEWIDE NEEDS ASSESSMENT – WHAT IT IS AND IS NOT

Before elaborating on the purpose of the assessment program, it may be helpful to begin by stating what the program is *not* intended to do.

First, the program is *not* one that will involve all schools or all students who are at the age or grade level that has been selected to be assessed. Rather, a sample of students from a sample of schools will be drawn. The exact procedure that will be used to select schools and students will be explained in this publication.

Second, Ohio's Statewide Needs Assessment is *not* a mandatory program. Of course, it is hoped that schools selected to participate will do so to assure the representativeness of the sample and to permit the results to be generalized.

Third, the data resulting from the assessment will *not* be analyzed or reported on for individual students, schools, or districts. Indeed, at the time of the assessment, names of students will not be collected, nor will names of schools or districts be noted on the students' answer sheets.

Fourth, during the first year of the assessment program *no* student socioeconomic data, except age and sex of student, will be collected. With the exception of the size of the senior class of each school participating in the program, *no* school, district, or community data will be requested.

Now that an explanation of what Ohio's Statewide Needs Assessment will not involve has been given, the program as it *is* being planned will be explained.

Ohio's Statewide Needs Assessment is designed to provide baseline data about students' learning in cognitive and, perhaps in future years, non-cognitive areas. Over several years, students at various age/grade levels will be assessed. The area(s) to be assessed each year, as well as the age(s) or grade(s) of the students to be assessed, will be considered and advised upon by the ESEA Title III State Advisory Council. Members of the advisory council, representing educational, cultural, and business interests throughout the state, are appointed to the council by the Superintendent of Public Instruction.

In the fall of 1973, upon the advice of the advisory council, it was decided that, for the first year of the assessment, only one area—reading—will be assessed at only one grade level—the twelfth. Twelfth graders were selected because they represent the terminal point in students' secondary education.

The decision to collect data about student reading reflects one of the concerns expressed by citizens during the state's Search for Consensus. This concern and others were adopted as statewide educational goals in June, 1973, by the State Board of Education. These goals, which follow, will serve as guides when future decisions are made about the areas to be assessed.

Statewide Educational Goals

BASIC ACADEMIC SKILLS

Language Skills

Each student should have basic reading, writing, listening and speaking skills.

Mathematics and Science

Each student should have basic analytical and reasoning skills including a knowledge of mathematics and science facts.

Social Studies

Each student should know the basic principles and practices of American society in comparison to other societies, as well as the rights and duties associated with responsible citizenship in American society.

Capabilities of Aesthetic Experience

Each student should have the opportunity to learn the fundamentals of, to observe and participate in music and the other fine and performing arts.

Career Education

Each student should have the skills necessary to be able to make a career decision and be qualified for a career choice.

Human Relations, Family Living and Personal Development

Each student should have an understanding of the importance of human relations, family relationships and the skills necessary to function successfully in everyday life.

Learning To Be a Learner

Each student should know how to obtain and use new facts, skills and ideas as his need for them arises.

Physical Fitness, Recreation and Mental Health

Each student should know how to develop and maintain acceptable physical and mental health.

The same age or grade level of students will be reassessed periodically in the same area(s), thus allowing for a measurement of student achievement over several years. For example, the first year of the assessment program now being planned will assess reading among twelfth graders. Perhaps five years from now the reading ability of twelfth grade students again may be assessed. The results of both of these assessments could be compared to make some determination as to whether or not reading performance of Ohio twelfth graders has improved, remained the same, or worsened in that time.

These comparisons of similar groups of students will be particularly valuable because of the approach to assessment that will be utilized in the program. Ohio's Statewide Needs Assessment will employ an objective-based or criterion-referenced assessment instrument rather than a norm-referenced instrument.

The latter is designed to result in a ranking of students in order from high to low, depending upon how well they performed on the test instrument. Since the intent of Ohio's Statewide Needs Assessment is not to compare individual students, schools, or districts, an objective-based instrument was thought to be more suitable than a norm-referenced instrument.

An objective-based assessment instrument assesses the student's ability to perform tasks thought to be desirable for the student to perform. These desired student performances or tasks are expressed in terms of objectives. Therefore, an objective is a statement of a desired student performance. The objective-based instrument contains items designed to determine whether or not students are able to do what the objectives state they should be able to do. A student's performance on the instrument then is judged in terms of how well he or she can perform the objectives rather than how well he or she performs in relationship to other students.

SECTION III

HOW WAS THE ASSESSMENT INSTRUMENT DEVELOPED?

Once the decisions about grade level and subject area to be assessed during year one were made, the Division of Planning and Evaluation collected existing objectives and test items suitable for usage in the first year of the needs assessment. From the onset of the assessment planning, the division was interested in surveying the field of existing objectives and items. The writing of good objectives and items is time consuming and costly. Therefore, the first step was to determine what objectives and items existed before undertaking the development of new ones.

The major source of the existing objectives and test exercises was NAEP – National Assessment of Educational Progress – a project sponsored by the Education Commission of the States. NAEP assesses young Americans at the ages of nine, 13, 17 and 26-35 in a number of subject areas. Each subject area is assessed on a rotating basis. In other words, an area is assessed every few years rather than every year. After each assessment is conducted, NAEP releases the objectives and some of the items used. These items become a part of the public domain, which means that they can be used by others at no cost.

In the collection of the objectives and released items that NAEP used in its assessment of reading, particular attention was given to those objectives and items used to assess 17-year-olds.

Another source of existing objectives and items was other states. When the division began planning for the assessment, it conducted a survey of other states' assessment programs. This survey indicated, among other things, what subject areas and age/grade levels of students were assessed by other states, and which states were utilizing an objective-based approach. Consequently, the division was able to identify those states planning to assess 17-year-olds or twelfth graders in the area of reading using an objective-based instrument.

Requests were sent to these states for examples of their objectives and items. Virtually all of these states' assessment were composed either totally or in part of NAEP objectives and items. Some states had undertaken to develop their own objectives and items to supplement NAEP materials but had not yet conducted their assessments. Others had, but were not yet ready to release their materials. One state–

Minnesota—did grant the department permission to include some of its objectives and items in Ohio's assessment of twelfth grade reading.

After the existing objectives had been collected, reading specialists from the Ohio Department of Education reviewed them to determine which objectives would be most important and suitable to include in the first assessment of reading among twelfth graders.

Items existed to assess some of these objectives. For other objectives, however, few or no suitable items existed. For these objectives, new items were developed. The division began this procedure by writing a Request For a Proposal (RFP) for item development. The RFP listed those features the division wanted the new items to include.

This request was sent to several companies identified as experienced in objective-based item development. The proposal submitted by the Measurement Research Center, Division of Westinghouse Learning Corporation, was judged to be the most suitable and the contract for development of new test items for year one of the assessment was granted to Measurement Research Center.

An initial part of the development of the assessment instrument was the involvement of a review panel composed of administrators, teachers, students, and representatives of educational and civic organizations. The function of this panel, which met on March 8, 1974, was to determine whether or not the objectives thought by the reading specialists to be most important to assess during year one of the program, and the items for these objectives, met the objective and item criteria included in the ESEA Title III State Plan. Specifically, the department wanted each member of the review panel to determine whether or not each objective represented an **important** part of a student's learning or skill in reading; learning that would be **appropriate** to assess among twelfth graders; learning that **is taught** in Ohio schools; and learning that **should be taught** in Ohio schools.

In the opinion of the review panel members, most of the objectives were important, appropriate, and should be taught. The criterion the objectives most frequently failed to meet was the **is taught** in Ohio schools criterion. Nevertheless, most objectives which did not meet this criterion were deemed important enough to be included.

The panel members were asked to apply a second set of criteria to the items. First, they read each item to assure that it was **not offensive.**

Obviously, the assessment instrument was not to include items that utilized language or examples that could constitute an invasion of privacy or that could be construed as offensive.

Second, the items were reviewed for **relevancy**. As much as possible, items were to present students with reading situations similar to those which they would encounter in their everyday adult activities.

Third, items were to be **understandable**. In other words, the items were to be clearly written and were to communicate their intent.

Fourth, the review panel determined whether or not the item had **directionality**. Each item was to have only one correct or desired answer.

Finally, the panel members were to determine whether each item was a **direct measure of the objective** it was intended to assess. Obviously, each item was to measure the student's ability to perform the objective it was designed to assess.

The review panel members thought few of the items were offensive, irrelevant, unclear, or not a measure of their objective. The criterion the items most frequently failed to meet was that of **directionality**.

Based upon the reviews and comments of the panel members, some items were altered and corrected; others were excluded from further consideration.

In summary, the reading assessment instrument to be used in the first year of Ohio's Statewide Needs Assessment will contain items that assess those objectives thought by reading specialists in the Ohio Department of Education to be most important to include in the first assessment of reading among twelfth graders. The items contained in the instrument come from three sources – the National Assessment of Educational Progress, the State of Minnesota, and the Westinghouse Learning Corporation.

SECTION IV

WHO WILL BE INCLUDED IN THE ASSESSMENT?

Ohio's Statewide Needs Assessment is planned to assess only a sample of Ohio twelfth graders. Dr. D. Ransom Whitney, Chairman of the Department of Statistics, Ohio State University, and the Ohio Department of Education Division of Computer Services, have aided the department in designing the assessment sample.

A two-staged sampling approach is to be utilized. First, a random sample of schools was drawn from all Ohio public and nonpublic schools that have a twelfth grade class. Superintendents from the districts in which these schools are located will be contacted and asked to participate in the assessment. It should be repeated here that participation in Ohio's Statewide Needs Assessment is voluntary. However, to assure representativeness of the sample and the ability to generalize the results, the department hopes all sample schools will decide to take part in the assessment.

Personnel from schools agreeing to participate will conduct the second stage of the sampling procedure – i.e., the selection of the random sample of students from the schools' twelfth grade classes. The exact number of students involved in the assessment from each school will depend upon the size of the twelfth grade class in that school. The procedure that school personnel will use to draw the student sample will be developed by the department and explained at a workshop planned for September, 1974. It is important to stress that the actual selection of the student sample will be made by personnel from the school, not from the department. Thus, the names of students participating in the program will not at this time or at any other time be known by the department.

SECTION V

HOW WILL THE INSTRUMENT BE ADMINISTERED?

It is apparent that the administration of the instrument can best be accomplished by school personnel – preferably guidance counselors. The counselors or personnel selected from the schools to administer the instrument will attend a workshop probably in September, 1974, at which time the exact method to be used to administer the instrument will be explained. The schools will be asked to conduct the assessment on a day during the fourth week in October.

Most students should require about one and one-half hours to complete the test section of the instrument. Additional time will be allotted for the test administrator to give directions and for students to complete preliminary questions about their attitudes toward reading. Too, students will be given about a five to ten minute break midway in the assessment.

It is estimated that most students should be able to complete the preliminaries and the test section in two hours. However, because the intent of the assessment program is to give students the opportunity to answer all the items in the instrument, the schools will be asked to provide enough time to allow the vast majority of students to complete all the items.

The department will request that all students in the sample within a school be assessed at the same time. The number of students to be assessed in most schools involved will be less than 30. If schools are unable to assess all students at one time, special arrangements can be made for a split assessment session.

The school personnel who administer the instrument will be responsible for mailing the test booklets and answer sheets to the Department of Education. The personnel also will be responsible for informing the department as to the exact number of twelfth grade students in the school at the time of the assessment (October, 1974). Why the department needs this information is explained in the answer to the next question.

SECTION VI

HOW WILL ASSESSMENT DATA BE ANALYZED AND REPORTED?

As the answer sheets are returned to the department, a notation will be made on each answer sheet to indicate the size of the twelfth grade class of the student who completed the answer sheet. This information is needed by the sampling consultant to calculate the **confidence interval** for each item. (An explanation of confidence interval will be given later.) To supply this information the department will employ a coding system that will allow the sampling consultant to have the data to make the calculations, while maintaining the anonymity of the schools. Categories based upon the twelfth grade class size of schools involved in the assessment will be established. A code letter (A,B,C) will be assigned to each category. For example, category A schools may be those with a twelfth grade class size between 0-100 students. Category B schools may be those with a class size between 101-200, and so on. The answer sheets of those students who attend schools with a twelfth grade class size between 0 and 100 will be coded with a letter A, while students attending schools with a twelfth grade class size between 101 and 200 will be coded with a B, and so on.

Because no category will contain only one school, after this code is placed on the students' answer sheets it will be impossible to identify the school at which any answer sheet was completed. It should be stressed once again that this categorization is being done only to calculate the item confidence interval. These categories will not be used for further analysis or for reporting the results.

The reader may be asking what is a **confidence interval** and why is its calculation necessary? A confidence interval is the range of scores within which it can *confidently* be assumed that the *actual* score falls. An *actual* score used in this sense means the score that could be expected if all students in the group to be assessed were involved in the assessment rather than just a sample of these students.

When the confidence intervals for each item on the reading assessment instrument are calculated, the performance of all Ohio twelfth grade students on each item in the instrument can be predicted from the performance on the items by a sample of Ohio twelfth grade students.

The assessment instrument will be scored so that the percentage of students that correctly answered each item as well as the percentage of students that selected each of the incorrect answer choices will be known.

Knowing how students in the assessment responded on each item and knowing the confidence interval of each of the items, those interpreting the results may make statements such as the following: If on item one of the assessment 75 percent of the students responded correctly and if the confidence interval for that item has been calculated as plus or minus two percent, it can be said that if all Ohio twelfth graders were involved in the assessment, chances are good that between 73 percent and 77 percent of the students would answer the item correctly. The reader might ask, "Just *how good* are the chances that the percentage of Ohio students responding correctly to item one would fall into that range?" Year one of Ohio's Statewide Needs Assessment will yield results at the 95 percent **confidence level.** This means that if 75 percent of the students responded correctly to item one, and a plus or minus two percent confidence interval has been calculated, the chances are 95 out of 100 that the *actual* score of all Ohio students on item one falls between 73 percent and 77 percent. Therefore, theoretically a five percent chance exists that the percentage of students correctly responding to the item would fall below 73 percent or above 77 percent.

These item-by-item analyses will give a good indication of how well students can perform the objectives being assessed. However, to determine where student needs exist it must be determined how well students should be able to perform the reading objectives. In other words, desired student performance levels must be established for each item. A procedure to establish these desired performance levels is now being planned. It is anticipated that teachers, administrators, representatives of educational and civic organizations, and students will be involved in this process. These individuals will be asked to look at each item in the assessment instrument and ask themselves, "What percentage of twelfth grade students should be able to answer this item correctly?"

Knowing what students *should be able to do* and what they actually *did* will point out where student reading needs exist with respect to the objectives assessed.

The following illustration will explain how this will be accomplished. Returning to the example used earlier, if 75 percent of the students re-

sponded correctly to item one, but those setting item desired performance levels thought 90 percent of the students should be able to respond correctly to the item, it could be said that a 15 percent discrepancy exists between what Ohio students *can* do on the item and what it is thought the student *should* be able to do. If these calculations are made for each item, a determination can be made about student needs for each item. If all items that assess a given objective are grouped together, a determination of student needs for that objective can be made.

The data from the assessment may be analyzed in other ways. In what ways will be decided following discussions with people experienced in analyzing data from states' assessment programs. These discussions will be held in approaching months. It is anticipated that by early 1975 the results of the data analysis should be known.

SECTION VII

HOW WILL THE RESULTS BE DISSEMINATED?

After the data from the assessment have been analyzed, reports presenting and explaining the results will be written. It also is anticipated that regional meetings will be held throughout the state to provide further explanation of the assessment results to reading specialists, teachers, school administrators, and other interested people. Emphasis at these meetings will be upon the discussion of the interpretations and implications of the results for Title III purposes.

SECTION VIII

HOW WILL SUBSEQUENT YEARS OF THE ASSESSMENT BE CONDUCTED?

When the first year of the assessment is completed, planning will begin for the second year of the program. Analysis of the first year activities will be made to determine what similar activities need be undertaken in subsequent years of the assessment and what activities need be altered. As the program progresses over the years, alterations will be made where and when they are needed.

SECTION IX

IN CONCLUSION

As Ohio's Statewide Needs Assessment becomes an established feature of the Title III effort, the learning needs of students at various grade levels in several cognitive and noncognitive areas will be defined accurately and specifically. Those vying for Title III funding will be expected to address themselves to these needs and attempt to design projects to alleviate them.

STATE BOARD OF EDUCATION

John R. Meckstroth, President, Cincinnati
William H. Cossler, Vice President, Youngstown
Martha Bolton Agler, Columbus
William M. Baker, Madison
Wallace E. Blake, Zanesville
Walter A. Burks, Jr., Cleveland
Thaddeus Garrett, Jr., Akron
Susan D. George, Canton
William M. Judd, Cincinnati
Everett L. Jung, M.D., Hamilton
Robert A. Lyons, Sr., Dayton
Roy D. McKinley, Coshocton
Ward M. Miller, Portsmouth
Gene Norris, Berea
David R. Rittenhouse, Toledo
Anthony Russo, Mayfield Heights
Thomas J. Russo, Maple Heights
Ruth S. Schildhouse, Columbus
Wayne E. Shaffer, Bryan
Cecil M. Sims, Piqua
Robert W. Walker, Adena
Robert E. Williams, Xenia
Martha W. Wise, Elyria

STATE ADVISORY COUNCIL
TITLE III, ESEA

Emory Leverette, Chairman, Toledo
K.C. DeGood, Chairman-Elect, Trilby
Harvey Alston, Columbus
Msgr. Bennett Applegate, Columbus
Richard Beach, Dayton
Keith Gainey, Cleveland
Kenneth Hoedt, Akron
Eugene Kavanagh, Cincinnati
Leonard Kingsley, Perrysburg
Eugene McKenzie, Portsmouth
Mrs. Warren Roberts, Belpre
Robert Shreve, Youngstown
Leonard Stubbs, Centerville
Kenneth Vordenberg, Cincinnati

Ohio Department of Education
Columbus, Ohio